



Agri-News

August 22, 2005

Alberta's climate under study

It's talked about all the time – the weather – “not enough rain,” “too much rain,” “where's the sun,” “it's too hot,” or “it's not hot enough.” Alberta's variable climate affects everyone – farmers, gardeners, fire fighters, retailers, and tourists. It also affects the success of many industries that are weather-reliant.

Albertans have often commented that over the past 100 years Alberta's climate has become warmer and wetter... and apparently it's true. At least, those are the findings of a recent study published in the July 2005 issue of the Journal of Applied Meteorology.

The paper analyzed long term, daily data from across all of Alberta acquired by the Alberta Environmentally Sustainable Agriculture (AESAs) Soil Quality Program and more recently through the Alberta Drought Strategy. Alberta Agriculture, Food and Rural Development uses this daily data to look at soil risks (water and wind erosion) as well as data to enable computer modeling to assess soil nutrient status or drought conditions.

From an Alberta agroclimatic point of view, a variety of areas were looked at in compiling data for the study. This data included:

- continuous daily climate data
- examination of trends and spatial variability of the resources and the potential crop growing area
- May to August precipitation
- the start, length and end of growing seasons
- date of last spring frost
- date of first fall frost
- length of frost free-period
- growing degree days
- corn heat units

“Looking at the long-term data, it was found that summer precipitation has increased by 14 per cent over the province,” says Tom Goddard, soil conservation specialist with Alberta Agriculture, Edmonton. “The regions with the largest increases were in the north, northwest and southeast. The long-term trend has also been towards a warmer province. The northern boundary for the corn growing area has moved 250 km from where it was in the 1913 to 1932 period.”

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The collaborative work *Temporal and Spatial Changes of the Agroclimate in Alberta from 1901 to 2002*, was published in the Journal of Applied Meteorology in July 2005. The scientists and authors of this collaborative work are Sam Shen and Huamei Yin, University of Alberta, Department of Mathematical and Statistical Sciences; Karen Cannon, Allen Howard and Shane Chetner from Alberta Agriculture's conservation and development division; and, Tom Karl from the National Climatic Data Centre in Asheville, USA.

So, the next time you hear someone say that it's warmer and wetter than 'in the good old days', you can knowledgeably nod your head in agreement.

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National Agriculture Awareness Conference

Alberta is pleased to be the provincial host for the 2005 National Agriculture Awareness Conference (NAAC) to be held November 13 to 15, 2005 at the Fantasyland Hotel, Edmonton. This progressive conference is a forum to share the latest information, experiences and insights on agriculture education, awareness, communications and public relations in the agri-food industry in Alberta, Canada and the world.

"From public relations to education, this year's conference will offer a jam-packed program of interest to anyone wanting to strengthen and build the agriculture industry's capacity in the arenas of awareness, communications or agriculture education," says Betty Grudnizki, co-chair of NAAC 2005, Edmonton. "Central to the conference is a professional development program that presents leading edge speakers and thinkers on communicating about the issues facing agriculture and food today."

Day one of the conference will showcase speakers David Foot, Andrew Nikiforuk and Guy Dauncey; well-known and respected writers who will collectively enlighten delegates on how the larger environment affects the issues facing agriculture today. There will also be a chance to hear about initiatives happening across the country. The first day of the conference wraps up with 'The Perfect Ten Dinner Party', where participants will indulge in a variety of delectable, national food favorites.

Day two will highlight food safety and survival strategies using market intelligence. There will be a variety of sessions for educators, environmentalists and community relation specialists. James Lukaszewski, New York, a leading counsel to companies and industries worldwide, will discuss the communications basics on supporting the industry during a crisis. Bruce Kirby, adventure author, photographer and motivational speaker will wrap-up the day with his address *The Spirit of Adventure: Lessons from the Wild*.

"The conference program is designed to address the communication, marketing and education issues for all business and commodity groups within the agriculture industry," says Grudnizki. "We hope to stimulate discussion and ideas about how to approach consumers, the media and other interest groups with the messages that need to be delivered. The conference is not specific to any one type of agriculture operation - but targets a variety of agriculture segments of the industry so that participants not only learn, but also have a chance to share in the global, overlapping issues that affect the industry as a whole."

The 2005 National Agriculture Awareness Conference will be a must to attend for all individuals connected with agriculture and the agri-food industry in Alberta and across Canada. For further information or to register, visit the conference website at www.naac-cnsa.ca

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Permits required for food establishments

What do a country Bed & Breakfast, a food concession at a u-pick operation and selling homemade jams and pickles have in common? Each of these business opportunities requires a food establishment permit from the regional health authority.

"When developing any business that involves food, it makes sense to contact the local health inspector first," says Betty Vladicka, food safety systems specialist with Alberta Agriculture, Food and Rural Development, Edmonton. "Knowing requirements early in the planning stage can save time and dollars in the development stage of any new business venture. Taking the time to discuss your business proposal or ideas with the public health inspector can save untold headaches and delays along the way."

The Alberta Food and Food Establishments Regulation requires that all premises where food for consumption by the public is sold, offered for sale, supplied, distributed, displayed, manufactured, prepared, processed, packaged, served, stored, transported or handled must have a permit from the local regional health authority. So, before an idea goes much past the planning stage:

- drawings and plans must be approved by the health inspector prior to any construction
- existing buildings may need an initial inspection before renovation work can proceed
- preparation and packaging facilities and equipment must be inspected and approved

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“Also, food establishment permits carry an annual fee,” says Vladicka. “The regional health authority or the health inspector will advise you of the permit cost. It may seem like a lot of red tape, but remember that it is illegal to operate any food establishment without a permit.”

A listing of regional health authorities is available on the Alberta Health and Wellness website at www.health.gov.ab.ca.regions/index.html

Links are provided for all regional health authorities.

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Commercialization of net feed efficiency in beef cattle

The first North American expected progeny differences (EPDs) for net feed efficiency (NFE) were discussed at a meeting held on June 9, 2005 at Olds College. Meeting participants included bull consignors and representatives from breed associations, the feedlot industry, Alberta Agriculture Food and Rural Development, Agriculture and Agri-food Canada and the University of Alberta.

“EPDs were generated on 221 bulls with accuracies of 59 per cent, which is very encouraging, and will improve with more NFE bull testing and when more progeny have been tested,” says Patrick Ramsey, beef specialist-new technologies, Alberta Agriculture, Food and Rural Development, High River. “An economic index that includes average daily gain, 365-day weight and NFE was also discussed. This index will aid in genetic selection by ranking bulls according to how well their progeny perform in the feedlot. This is an important step since it has been estimated that a five per cent improvement in feed efficiency will have four times the economic impact as a five per cent improvement in average daily gain.”

The Commercialization of Net Feed Efficiency in Beef Cattle project team, Patrick Ramsey; Dr. John Basarab, research scientist, Alberta Agriculture/Western Forage Beef Group; Neil French, ag-instructor, Olds College; Dr. Denny Crews, quantitative geneticist, Agriculture and Agri-Food Canada; and, Dr. Stephen Moore, genomics chair, University of Alberta, has just completed three years of NFE bull testing at Olds College.

Background information on the trial, results to date and presentations made at the June 9, 2005 meeting can be viewed on Alberta Agriculture’s website, www.agric.gov.ab.ca under >Livestock >Beef >Feeding >Commercialization of NFE in Beef Cattle >Results 2005, or by typing in this link, [www1.agric.gov.ab.ca/\\$department/deptdocs.nsf/all/beef6568](http://www1.agric.gov.ab.ca/$department/deptdocs.nsf/all/beef6568).

“Over the last three years we have tested 255 purebred bulls from 43 purebred breeders, from seven breed associations, from across Alberta, Saskatchewan and Manitoba, and 78 crossbred bulls from a large ranch in southern Alberta,”

says Ramsey. “This southern Alberta ranch runs about 1300 purebred cows from which they raise their own bulls, and 5000 commercial cows from which they finish their calves to slaughter. The ranch managers demonstrate an understanding of the value of breeding for reduced feed costs and improved profitability.

“We were able to encourage commercialization of NFE bull testing, a year ahead of schedule, at Cattleland Feedyards and we have worked with Scott McKinnon, Bull Test Manager, to oversee the running of their first two NFE bull tests involving 189 bulls from 50 purebred breeders.”

The Cattleland NFE Bull Test has allowed more producers to participate in NFE testing to identify efficient sires, and learn about the potential of this new technology in breeding programs to improve production efficiency and competitiveness. More demonstration and information is required by producers to better understand this economically important trait.

Purebred producers who would like to be involved in NFE bull testing this fall at Olds College (4 bull calves from the same sire) or at Cattleland Feedyards (larger groups of bulls) are encouraged to call Ramsey or McKinnon as soon as possible.

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On-line drought reports for Alberta’s agricultural regions

Drought reports, prepared by Alberta Agriculture, Food and Rural Development’s Drought Reporting Team of Ralph Wright, Daniel Itenfisu and Isabel Simons-Everett, are posted to Alberta Agriculture’s website on an on-going basis.

“Drought reports help farmers gauge precipitation patterns and soil moisture reserves to help them track moisture trends and the likelihood of crop moisture stress,” says Ralph Wright, soil moisture specialist with Alberta Agriculture, Edmonton. “The drought report is easy to read and includes several colour maps that show precipitation and soil moisture in the northern, Peace, central and southern regions of the province’s agricultural area.”

One of the products the Drought Reporting Team produces shows the probability of returning to normal spring or fall conditions. Normal soil moisture is based on modeled averages computed for spring or fall, using data spanning the period

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from 1971 to 2000. The amount of soil moisture recharge that is needed to bring about average fall or spring conditions is computed by subtracting normal soil moisture for these times from current soil moisture conditions. Historic model runs are then analyzed to determine how many years during the 1971-2000 period that soil moisture recharge was similar to, or greater than that currently needed. The number of years that this occurred is then used to compute the probability of returning to normal.

As well as soil moisture, the report includes data and maps one the following:

- Recent (90-day) trend in long-term drought conditions to date
- 90-day precipitation departures to date
- Growing season precipitation to date
- Growing season precipitation departures to date
- Normal precipitation for each month
- Soil moisture (reported during the growing season months only - May through October)
- Current soil moisture deficit
- Long-term (hydrologic) drought
- Soil moisture needed to return to average spring or fall conditions
- Snow pack to date (reported during the winter season only)
- Frost severity and extent during times of unusually cold weather

The most recent Drought Report can be viewed by visiting Alberta Agriculture's website at www.agric.gov.ab.ca and clicking on *Drought reports* or by using the search option and typing in 'drought reports'.

Soon a web-based mapping tool will be in production that will allow users to view maps, map historic climate data, map near real time weather data, and even download weather data. The map viewer and historic climate mapper is currently running and can be found by visiting Alberta Agriculture's website at www.agric.gov.ab.ca and clicking on *Weather and Climate*, then looking far to the right and clicking on the quick link to *Agroclimatic Information Service*.

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Agri-News Briefs

Water well abandonment workshop

The West Central Conservation Group is conducting a workshop on water well abandonment on August 26, 2005 at the Sangudo Hall in Sangudo. The workshop is geared towards landowners who have old wells within the floodplain and need some information on the process of having that well abandoned. Seminar sessions will start at 8:30 in the morning and a demonstration will be conducted in the afternoon. Registration fee for the workshop is \$5 (to cover lunch). For further information and to register, contact the West Central Conservation Group at (780) 785-3411 or (780) 459-1900.